

FACT SHEET FOR STATE WASTE DISCHARGE PERMIT ST-7381
For Metal Finishing, Inc.

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INTRODUCTION

This fact sheet is a companion document to the draft State Waste Discharge Permit No.ST-7381. The Department of Ecology (the Department) proposes to issue this permit, which will allow discharge of wastewater to the City of Marysville POTW. This fact sheet explains the nature of the proposed discharge, the Department's decisions on limiting the pollutants in the wastewater, and the regulatory and technical bases for those decisions.

Washington State law (RCW 90.48.080 and 90.48.160) requires that a permit be issued before discharge of wastewater to waters of the state is allowed. This statute includes commercial or industrial discharges to sewerage systems operated by municipalities or public entities which discharge into public waters of the state. Regulations adopted by the state include procedures for issuing permits and establish requirements which are to be included in the permit (Chapter 173-216 WAC).

The fact sheet and draft permit have been reviewed by the Permittee.

GENERAL INFORMATION	
Applicant	Metal Finishing, Inc.
Facility Name and Address	Metal Finishing, Inc. 4000 - 88 th Street NE Marysville, WA 98270
Type of Facility	Electroplating, Metal Finishing (Categorical Significant Industrial User subject to standards set forth under 40 CFR Part 433.17)
Facility Discharge Location	Latitude: 48° 02' 33" N Longitude: 122° 10' 20" W
Treatment Plant Receiving Discharge	City of Marysville
Contact at Facility	Name: Mr. Brian Lowe, General Manager Telephone No.: (360) 659-1971
Responsible Official	Name: Janas Reed Title: Owner Address: 4000 - 88 th Street NE Marysville, WA 98270 Telephone No.: (360) 659-1971

BACKGROUND INFORMATION

DESCRIPTION OF THE FACILITY

This shop is employed in tin plating, phosphate conversion coating, dyeing, sulfuric acid anodizing, zinc plating, nickel plating, tin plating, dyeing, and chromate conversion coating. The existing permit authorizes discharge of wastewater from metal finishing processes to the sanitary sewer from two of the above processes—the rinsewater from the metal cleaning line in the conversion coating line and the rinsewater from the phosphate conversion coating line. The maximum discharge from these two lines is approximately 5,000 gallons per day. The proposed pretreatment modifications, described below, are expected to result in discharge rates of up to 10,000 gallons per day. Rinsewater from the other processes in the plant is evaporated.

HISTORY

A metal finishing business was operated in this building by a previous owner under the name Pacific Metal Finishing. The present owners purchased the building and some of the equipment from Pacific Metal Finishing in 1995. Prior to issuance of the existing permit in 1996, the present owners had evaporated all industrial wastewater.

TREATMENT PROCESSES

The existing treatment system consists of a pH neutralization system. However, the owner has undertaken a design and construction of a pretreatment system. The plans and specifications for the system were approved by the Department on August 17, 1999. Plans for the new treatment system include chromium reduction and metal precipitation on a batch basis, with probable elimination of the evaporation system. The pH neutralization system will be upgraded as well. Under the new system, virtually all rinsewaters will be discharged to the sanitary sewer following pretreatment. The system is planned to be in operation by June 1999. In addition, the owner has undertaken design of a floor sealing system at the request of the Department.

PERMIT STATUS

The existing permit for Metal Finishing, Inc., was issued on September 27, 1996. The permit was modified on July 17, 1998, to increase the flow limitation from 900 gpd to 5000 gpd.

SUMMARY OF COMPLIANCE WITH THE PREVIOUS PERMIT

The facility last received a sampling inspection on **December 18, 1998**.

DMR's submitted by the Permittee, and the Department's sampling, have both indicated violations of the copper limitation appearing in the permit. The violations of the copper limitation began after a more stringent copper limitation was placed in the permit at the request of the City of Marysville, by means of a permit application. Although the Department has issued Notices of Correction for certain of these copper violations, no penalties have been issued yet, as the Permittee has undertaken an engineering study and has begun construction of a pretreatment works to remove metals. The engineering study is also expected to include recommendations for sealing the shop floor.

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An inspection conducted by the Department's Hazardous waste program in 1998 indicated a number of violations regarding storage and labeling of dangerous waste.

WASTEWATER CHARACTERIZATION

The values in the following table indicate metals and cyanide effluent values as reported in Discharge Monitoring Reports submitted by Metal Finishing, Inc.

Parameter	Avg of Daily Max	Max of Daily Max	Min of Daily Max
Cadmium, T(mg/L)	<0.01	<0.01	<0.01
Chromium, T(mg/L)	0.19	1.3	0.08
Copper, T(mg/L)	0.65	7.2	0.025
Lead, T (mg/L)	0.3	0.3	0.3
Nickel, T(mg/L)	0.14	0.29	0.02
Zinc, T(mg/L)	0.39	3.1	<0.02
Cyanide, T(mg/L)	0.095	0.4	<0.05

SEPA COMPLIANCE

This plant is pre-existing and already in possession of a state waste discharge permit. Therefore no additional SEPA checklist is required for re-issuance of this permit.

PROPOSED PERMIT LIMITATIONS

State regulations require that limitations set forth in a waste discharge permit must be based on the technology available to treat the pollutants (technology-based) or be based on the effects of the pollutants to the POTW (local limits). Wastewater must be treated using all known, available, and reasonable treatment (AKART) and not interfere with the operation of the POTW. The more stringent of the local limits-based or technology-based limits are applied to each of the parameters of concern. Each of these types of limits is described in more detail below.

All waste discharge permits issued by the Department must specify conditions requiring available and reasonable methods of prevention, control, and treatment of discharges to waters of the state (WAC 173-216-110). Existing federal categorical limitations for this facility are found under 40 CFR Part 433.17. These categorical limitations are considered to be consistent with the AKART requirement. The table below indicates the categorical limitations applying to this plant.

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In order to protect the City of Marysville POTW from pass-through, interference, concentrations of toxic chemicals that would impair beneficial or designated uses of sludge, or potentially hazardous exposure levels, effluent limitations for certain parameters are necessary. These limitations are based on local limits developed by the City of Marysville, which are codified in ordinance, and appear in the table below. The limitations appearing in bold typeface below indicate the limitation appearing in the permit. The limitations in the proposed permit renewal are based on the most stringent of local limits calculated by the City of Marysville and the categorical limitations found in 40 CFR 433.17 (Pretreatment Standards for New Sources).

Federal and Site-Specific Bases for Limitations Metal Finishing, Inc.			
Pollutant Parameter	Daily Maximum 40CFR433.17 (mg/L)	Monthly Avg 40CFR433.17 (mg/L)	City of Marysville Ordinance Local Limit (mg/L)
cadmium	0.11	0.07	0.7
chromium	2.77	1.71	1.47
copper	3.38	2.07	0.5
cyanide	1.20	0.65	N/A
lead	0.69	0.43	0.52
nickel	3.98	2.38	1.48
silver	0.43	0.24	0.47
zinc	2.61	1.48	1.67
TTO	2.13	N/A	N/A

MONITORING REQUIREMENTS

Monitoring, recording, and reporting are specified to verify that the treatment process is functioning correctly, and that effluent limitations are being achieved (WAC 173-216-110).

The monitoring schedule is detailed in the proposed permit under Condition S1. Specified monitoring frequencies take into account the quantity and variability of the discharge, the treatment method, past compliance, significance of pollutants, and cost of monitoring.

Based on existing monitoring data from Metal Finishing, Inc., the only parameters which appear to be present in the effluent in environmentally significant quantities are chromium, copper, lead, nickel and zinc. Therefore, those parameters have been given monthly monitoring frequencies. Cadmium, silver, and cyanide appear to be present in less environmentally significant quantities and have, therefore, been given the minimum sampling frequency specified in federal regulations (two times per year). Due to the limited use of organic solvents at this plant the Permittee has been authorized to submit a TTO certification statement in lieu of submittal of TTO monitoring results.

OTHER PERMIT CONDITIONS

REPORTING AND RECORDKEEPING

The conditions of S3 are based on the authority to specify any appropriate reporting and recordkeeping requirements to prevent and control waste discharges [WAC 273-216-110 and 40 CFR 403.12 (e), (g), and (h)].

OPERATIONS AND MAINTENANCE

The proposed permit contains condition S.5. as authorized under Chapter 173-240-150 WAC and Chapter 173-216-110 WAC. It is included to ensure proper operation and regular maintenance of equipment, and to ensure that adequate safeguards are taken so that constructed facilities are used to their optimum potential in terms of pollutant capture and treatment.

PROHIBITED DISCHARGES

Certain pollutants are prohibited from being discharged to the POTW. These include substances which cause pass-through or interference, pollutants which may cause damage to the POTW or harm to the POTW workers (Chapter 173-216 WAC) and the discharge of designated dangerous wastes not authorized by this permit (Chapter 173-303 WAC).

DILUTION PROHIBITED

The Permittee is prohibited from diluting its effluent as a partial or complete substitute for adequate treatment to achieve compliance with permit limitations.

SOLID WASTE PLAN

The Department has determined that the Permittee has a potential to cause pollution of the waters of the state from leachate of solid waste.

This proposed permit requires, under the authority of RCW 90.48.080, that the Permittee maintain an adequate solid waste plan, review it periodically and update it as necessary to prevent solid waste from causing pollution of the waters of the state.

SPILL PLAN

The Department has determined that the Permittee stores a quantity of chemicals that have the potential to cause water pollution if accidentally released. The Department has the authority to require the Permittee to develop best management plans to prevent this accidental release under section 402(a)(1) of the Federal Water Pollution Control Act (FWPCA) and RCW 90.48.080.

The Permittee has developed a plan for preventing the accidental release of pollutants to state waters and for minimizing damages if such a spill occurs. The proposed permit requires the Permittee to periodically review and update this plan as may be necessary to prevent accidental releases to the waters of the state or the sanitary sewer.

SLUG DISCHARGE CONTROL PLAN

The Department has determined that the Permittee has the potential for a batch discharge or a spill that could adversely effect the POTW therefore a slug discharge control plan is required [40 CFR 403.8 (f)].

TOXIC ORGANIC MANAGEMENT PLAN

The Permittee is required to submit and maintain a Toxic Organic Management Plan, as it is authorized to submit a TTO certification plan in lieu of sampling for TTO's.

GENERAL CONDITIONS

General Conditions are based directly on state laws and regulations and have been standardized for all industrial waste discharge to POTW permits issued by the Department.

Condition G1 requires responsible officials or their designated representatives to sign submittals to the Department. Condition G2 requires the Permittee to allow the Department to access the treatment system, production facility, and records related to the permit. Condition G3 specifies conditions for modifying, suspending or terminating the permit. Condition G4 requires the Permittee to apply to the Department prior to increasing or varying the discharge from the levels stated in the permit application. Condition G5 requires the Permittee to construct, modify, and operate the permitted facility in accordance with approved engineering documents. Condition G6 prohibits the Permittee from using the permit as a basis for violating any laws, statutes or regulations. Conditions G7 and G8 relate to permit renewal and transfer. Condition G9 requires the Permittee to control production or wastewater discharge in order to maintain compliance with the permit. Condition G10 prohibits the reintroduction of removed pollutants into the effluent stream for discharge. Condition G11 requires the payment of permit fees. Condition G12 describes the penalties for violating permit conditions.

PUBLIC NOTIFICATION OF NONCOMPLIANCE

A list of all industrial users which were in significant noncompliance with Pretreatment Standards or Requirements during any of the previous four quarters may be annually published by the Department in a local newspaper. Accordingly, the Permittee is apprised that noncompliance with this permit may result in publication of the noncompliance.

RECOMMENDATION FOR PERMIT ISSUANCE

This proposed permit meets all statutory requirements for authorizing a wastewater discharge, including those limitations and conditions believed necessary to control toxics. The Department proposes that the permit be issued for such a period as to expire in state Fiscal Year 2004 (July 1, 2003 - June 30, 2004), in order to be consistent with the state's Basin Planning-based permit issuance schedule.